

WHAT IS CLAIMED IS:

1. ~~A videophone system, comprising:
a cable television system headend;
a plurality of subscriber terminals connected to said headend via a
transmission medium;
a videophone unit connected to at least one of said plurality of subscriber
terminals;
a camera associated with each said videophone unit, said camera being
adapted to capture video images for transmission via said videophone unit; and
at least one display device associated with each videophone unit;
wherein said videophone unit is adapted to transmit and receive
videophone signals over said transmission medium of said cable television system.~~

2. The videophone system of Claim 1, wherein said transmission medium comprises hybrid fiber coax.

3. The videophone system of Claim 2, wherein said camera is a digital video camera.

4. The videophone system of Claim 1, wherein said videophone unit further comprises:

a processor for encoding videophone data to be transmitted and for decoding received videophone signals.

5. The videophone system of Claim 4, wherein said videophone unit further comprises an encoder for providing display signals to said display.

1 6. The videophone system of Claim 5, wherein said encoder comprises an
2 analog television signal encoder.

1 7. The videophone system of Claim 5, wherein said encoder comprises a
2 digital television compositor/display

1 8. The videophone system of Claim 1, wherein said subscriber terminal is
2 capable of being configured to operate as a cable modem.

1 9. The videophone system of Claim 1, wherein said subscriber terminal
2 comprises a cable modem.

1 10. The videophone system of Claim 1, further comprising a graphical user
2 interface operable via a remote control for enabling a user of said videophone system to
3 place and receive videophone calls.

1 11. The videophone system of Claim 1, wherein said headend is coupled to a
2 second headend via a high-speed-long distance network to enable videophone signals to
3 be transported between two different cable television systems.

1 12. The videophone system of Claim 1, wherein a plurality of videophone units
2 are connected to one subscriber terminal.

1 13. The videophone system of Claim 1, wherein said videophone unit is
2 connected said subscriber terminal by at least one interface selected from the group
3 comprising: ethernet, wireless ethernet, firewire, universal serial bus, PCI and PCMCIA.

1 14. The videophone system of Claim 12, wherein said plurality of videophones
2 are connected to said one subscriber terminal via a local area network.

1 15. ~~The videophone system of Claim 11, wherein said long distance network~~
2 includes at least one of a satellite network and a terrestrial network.

1 16. ~~The videophone system of Claim 1, wherein said headend is adapted to~~
2 convert videophone signals from one predetermined format to a second predetermined
3 format based on a format of a videophone signal receiving unit, wherein a transmitting
4 videophone unit transmits videophone signals in a format different from a format of said
5 videophone signal receiving unit.

1 17. ~~A cable television system adapted to provide transport of videophone~~
2 signals, comprising:

3 17. ~~a cable television system headend;~~
4 a plurality of hubs operatively coupled to said headend; and
5 a plurality of nodes operatively coupled to said hubs and operatively
6 coupled to a plurality of videophones via a subscriber terminal, said subscriber terminal
7 and videophone being operatively coupled to a display device, wherein videophone signals
8 are transported over the cable television system.

1 18. ~~The cable television system of Claim 17, wherein said headend comprises:~~
2 a backbone switch;
3 a router, an application server, a receiver, a gateway and a network
4 controller, each operatively connected to said backbone switch; and
5 a modulator connected to said gateway.

1 19. ~~The cable television system of Claim 18, wherein each of said hubs~~
2 comprise:
3 an interface device coupled to the backbone switch of said headend;
4 a gateway and a modulator operatively coupled to said interface; and

1 a demodulator coupled to said modulator and said plurality of nodes.

1 20. ~~The cable television system of Claim 17, wherein said subscriber terminal~~
2 comprises a cable modem.

1 *ins A7* 21. ~~The cable television system of Claim 20, wherein a plurality of videophones~~
2 are connected to a single cable modem via a local area network.

1 22. The cable television system of Claim 17, wherein said subscriber terminal
2 is capable of being configured to operate as a cable modem.

1 23. ~~The cable television system of Claim 17, wherein said headend is in~~
2 communication with at least one second headend via a long distance network, thereby
3 enabling transport of videophone signals between separate cable television systems.

1 24. The cable television system of Claim 19, wherein said interface device
2 comprises a local area network interface.

1 25. The cable television system of Claim 17, wherein said cable television
2 system includes a transmission medium comprising hybrid fiber coax.

1 *ins A9* 26. ~~The cable television system of Claim 17, wherein said videophone further~~
2 comprises a digital camera for capturing video images to be transmitted.

1 27. The cable television system of Claim 17, wherein said videophone is
2 integrated into said subscriber terminal.

28. ~~The cable television system of Claim 17, wherein said subscriber terminal is interfaced to at least one videophone by at least one interface of the group comprising: ethernet, wireless ethernet, firewire, universal serial bus and PCMCIA.~~

29. A method for transporting videophone signals over a cable television network comprising the steps of:

creating a videophone signal;

encoding said videophone signal;

transmitting the encoded videophone signal to a predetermined receiver

over said cable television network;

receiving the transmitted videophone signal at said predetermined receiver;

decoding the received videophone signal; and

displaying the decoded videophone signal on a display device.

30. The method of Claim 29, further comprising the step of:

converting said encoded videophone signal at a headend of said cable television network to provide a converted videophone signal that is compatible with devices connected to said cable television network or to devices of a second cable television network.

31. The method of Claim 29, wherein said transmitted videophone signals are further transmitted to a receiver coupled to a second cable television network via a headend of the cable television network over a long distance data network.

32. The method of Claim 29, wherein said received videophone signal is received by a videophone device coupled to a second cable television network.

33. The method of Claim 29, wherein said videophone signal is encoded with a destination address identifying an intended receiver of said videophone signal.

1 34. The method of Claim 33, wherein said destination address comprises an
2 IP address.

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1 35. The method of Claim 29, wherein the steps of creating, transmitting and
2 receiving said videophone signal include using a graphical user interface.

1 36. The method of Claim 29, wherein the step of creating said videophone
2 signal comprises: capturing an image via a digital camera.

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